

Weekly Report

2017.08.27 刘良军

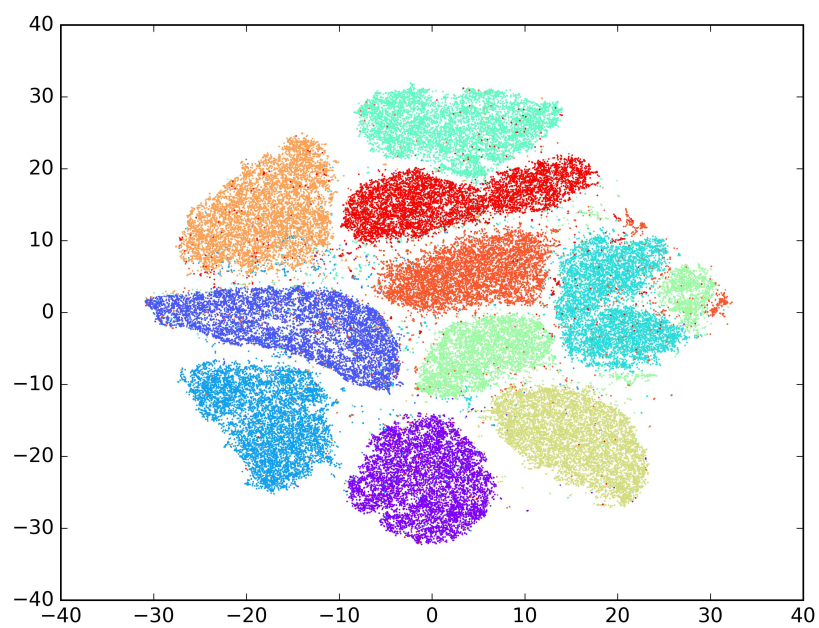
本周工作

工作	截止日期	当前进度
投影	9 月 30 日	成功将 Bhtsne 单线程修改为多线程，在运行时能够利用 95% 以上的 cpu（四核）。统计生成 knn 以及投影所耗费的时间（cpu 时间）。
NSVA	9 月 4 日	同步代码，部署环境。熟悉前端相关代码，明确任务。

Bhtsne 运行时间统计（cpu 时间）：生成 knn 耗时 5593.35s/投影时间 427.16s

```
Computing input similarities...
Building tree...
Searching for nearest neighbors...
- point 10000 of 70000
- point 20000 of 70000
- point 30000 of 70000
- point 40000 of 70000
- point 50000 of 70000
- point 60000 of 70000
- point 70000 of 70000
Input similarities computed in 5593.35 seconds (sparsity = 0.003071)!
Learning embedding...
Iteration 50: error is 114.263238 (50 iterations in 23.64 seconds)
Iteration 100: error is 114.263238 (50 iterations in 22.60 seconds)
Iteration 150: error is 114.262800 (50 iterations in 24.95 seconds)
Iteration 200: error is 108.219264 (50 iterations in 22.13 seconds)
Iteration 250: error is 5.998146 (50 iterations in 22.47 seconds)
Iteration 300: error is 4.735815 (50 iterations in 20.91 seconds)
Iteration 350: error is 4.342066 (50 iterations in 20.43 seconds)
Iteration 400: error is 4.109750 (50 iterations in 20.05 seconds)
Iteration 450: error is 3.943718 (50 iterations in 20.25 seconds)
Iteration 500: error is 3.816204 (50 iterations in 20.49 seconds)
Iteration 550: error is 3.714744 (50 iterations in 21.00 seconds)
Iteration 600: error is 3.629868 (50 iterations in 20.83 seconds)
Iteration 650: error is 3.558847 (50 iterations in 21.11 seconds)
Iteration 700: error is 3.498595 (50 iterations in 20.91 seconds)
Iteration 750: error is 3.445932 (50 iterations in 20.96 seconds)
Iteration 800: error is 3.399377 (50 iterations in 21.08 seconds)
Iteration 850: error is 3.357445 (50 iterations in 20.79 seconds)
Iteration 900: error is 3.319630 (50 iterations in 21.00 seconds)
Iteration 950: error is 3.285192 (50 iterations in 20.84 seconds)
Iteration 999: error is 3.254292 (50 iterations in 20.72 seconds)
Fitting performed in 427.16 seconds.
Wrote the 70000 x 2 data matrix successfully!
llj@vagllj:~/bh_sne_src$
```

Bhtsne 投影结果:



下周工作

修改 NSVA 项目的 BUG